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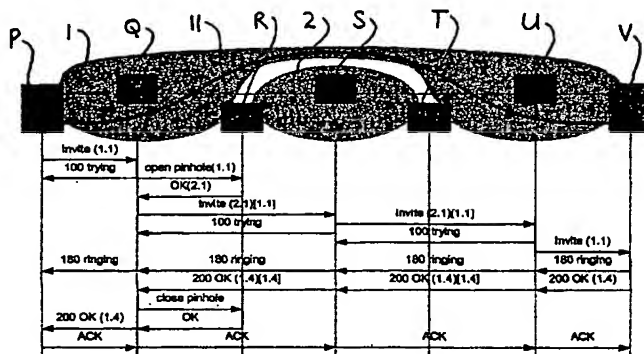
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(54) Title: **CALL SET-UP SYSTEMS**



(57) Abstract: A call set-up system sets up a call, which could be a voice call, between, for example, terminals P and V using call agents Q, S and U through a plurality of packet switched networks 1, 2 which are interconnected by network address translation (NAT) devices R, T. The messages to successive call agents includes media addresses in the associated networks for the actual data packets of the call when it has been set up. It could be that the call signalling passes from call agent Q associated with network 1 to call agent S associated with network 2, and then to call agent U associated once again with network 1, for example, because the user in the network 2 (which could be the internet) was redirecting their calls back to a terminal (V) in network 1, which could be a private network. Under the current Session Initiation Protocol (SIP), the call set-up message passed by S to U would only include an address in network 2 (2.1), and U would send an address in network 1 (1.3) to terminal V, forcing the media path to traverse NAT devices R and T. With the modified signalling of the invention, which could be a modified version of SIP, the call set-up message also includes the media address sent to at least some preceding call agents, so S passes (2.1)[1.1] to U, enabling U to give the media address (1.1) local to its network 1 to V, enabling NAT resources to be saved. The call agents Q, S, U can be incorporated into NAT devices, and the media addresses can be encrypted or in the form of a reference.



For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.